

## Supplementary Material: Online Resource 1

Interactions between *Kappa* and *Mu* Opioid Receptor Agonists: Effects of the Ratio of Drugs in Mixtures

*Psychopharmacology*

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The potency of morphine and etorphine, administered alone (circles and dashed lines), generally increased when co-administered with spiradoline in the antinociception and food-maintained responding assays, with the largest shifts occurring for mixtures having a greater proportion of spiradoline (3:1, diamonds). None of the mixtures increased body temperature. For statistical analyses of potency ratios see Supplementary Material: Online Resource 2. The same group of 7 rats contributed to the antinociception and body temperature study and a different group of 7 rats contributed to the operant study.

